

10/648458

SEP 01 2005

UNITED STATES PATENT AND TRADEMARK OFFICE

COMMISSIONER FOR PATENTS  
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ALEXANDRIA, VA 22313-1450  
[www.uspto.gov](http://www.uspto.gov)

PATENT NO.	PATENT DATE
6887941	05/03/05
Zhou	

Paper No.: \_\_\_\_\_

MAILING DATE  
Certificate  
AUG 24 2005  
of Correction

NOTIFICATION OF RETURN OF PAPERS  
RE REQUEST FOR CERTIFICATE OF CORRECTION

The request for a Certificate of Correction in the above-identified patent is returned herewith, together with the PTOL-1050 (SB/44) forms (if submitted), for the reason(s) checked below.

1. The request is unsigned. The request must be properly signed before it will be considered.

2. The request does not specifically designate the column and line numbers wherein the errors appear in the patent. A substitute request providing this information is required, for proper consideration.

3. The FORM PTOL-1050 (SB/44) submitted with your request is not suitable for printing purposes. See the instructions on the blank Form PTO-1050, enclosed.

4. The Patent No., as shown on papers attach, appears to be incorrect, because:  
 a. The Patent No. on the request and on the PTO-1050 do not agree.  
 b. The name of the patentee on the patented file does not agree with that shown on the enclosed papers..

5. The record reveals that there is no power of attorney to you in this case. A written power or authorization from the patentee, or assignee, if any, must be submitted, before the request may be considered.

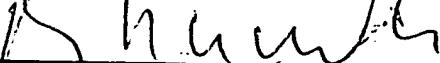
6. The request cannot be considered, because the paper indicated below was filed on \_\_\_\_\_, AFTER payment of the issue fee: [See 37 CFR 1.313(B).]  
 a. Amendment purported to be under Rule 312.  
 b. Assignment.  
 c. Priority papers.  
 d. Other (identify) \_\_\_\_\_

7. Other: \_\_\_\_\_

→ Corrected Attached  
mailed 9-13-05.

A. PLEASE RETURN A COPY OF THIS LETTER TOGETHER WITH THE ENCLOSED PAPERS AS CORRECTED TO ENSURE EXPEDIENT ASSOCIATION WITH THE FILE

B. Enclosed are copies of PTOL-1050 for use in typing the subject matter to be printed on the Certificate. This will avoid delay in handling request (See 862 O.G.2).

  
Decisions and Certificate of Correction Branch



*Cofc*  
KCC 4935.8 (K-C 17,051.1)  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Patent of: Zhou  
Patent No.: 6,887,941 B2  
Issued: May 3, 2005  
Confirmation No.: 5093  
For: LAMINATED STRUCTURES

**Certificate  
SEP 22 2005  
of Correction**

August 15, 2005

**REQUEST FOR EXPEDITED ISSUANCE  
OF CERTIFICATE OF CORRECTION UNDER 37 CFR 1.322**

TO THE COMMISSIONER FOR PATENTS,

SIR:

On studying the above-identified patent, the following errors were found (these errors are also noted on the attached form PTO-1050):

Column 3, line 46: "[warp]" and "[fill]" should read - - - "warp" and "fill".

Column 7, line 13: "230°C./216" should read - - - 230°C/216 - - -.

Column 20, claim 1, line 62: "between about" should read - - between about 10,000 and about 100,000 and a weight-average molecular weight between about - - -.

Column 22, claim 35, line 62: "and a balance of a comonomer selected from the weight butene-1," should be deleted.

08/19/2005 RMEBRAH1 00000069 6887941

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KCC 4935.8 (K-C 17,051.1)  
PATENT

REMARKS

In accordance with 37 CFR 1.322, a copy of Amendment A and Submission after RCE, dated September 1, 2004, and a copy of the Notice of Allowance dated November 5, 2004, are attached.

Since one or more of the errors shown above were made by Applicant, the \$100.00 fee required under Rule 1.323 is enclosed.

We respectfully request that a certificate of correction be issued.

Respectfully submitted,



Christopher M. Goff, Reg. No. 41,785  
SENNIGER POWERS  
One Metropolitan Square, 16th Floor  
St. Louis, Missouri 63102  
(314) 231-5400

CERTIFICATE OF MAILING

I hereby certify that the foregoing Letter to the Patent and Trademark Office in the patent of Zhou, Patent No. 6,887,941 B2, issued May 3, 2005 is being deposited with the United States Postal Service as first class mail in an envelope addressed to: Mail Stop Post Issue, Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandra, Virginia 22313-1450 on this 15th day of August, 2005.



Christie L. Hartmann

CMG/clh  
\*Enclosures

**UNITED STATES PATENT AND TRADEMARK OFFICE**  
**CERTIFICATE OF CORRECTION**

PATENT NO. : 6,887,941 B2

DATED : May 3, 2005

INVENTOR(S): Zhou

Page 1 of 1

It is certified that error appears in the above-identified patent and that said Letters Patent is hereby corrected as shown below:

Column 3, line 46: "l warp" and "l fill" should read - - - "warp" and "fill" - - -.

Column 7, line 13: "230°C./216" should read - - - 230°C/216 - - -.

Column 20, claim 1, line 62: "between about" should read - - - between about 10,000 and about 100,000 and a weight-average molecular weight between about - - -.

Column 22, claim 35, line 62: "and a balance of a comonomer selected from the weight butene-1," should be deleted.

MAILING ADDRESS OF SENDER:

Senniger Powers  
 One Metropolitan Square, 16th Floor  
 St. Louis, Missouri 63102

PATENT NO. 6,887,941 B2

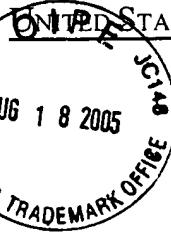
No. of additional copies

⇒ 2

This collection of information is required by 37 CFR 1.322, 1.323, and 1.324. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 1.0 hour to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, VA 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Attention Certificate of Corrections Branch, Commissioner for Patents, P.O. Box 1450, Alexandria, VA 22313-1450.

*If you need assistance in completing the form, call 1-800-PTO-9199 and select option 2.*

SEP 2 2 2005



UNITED STATES PATENT AND TRADEMARK OFFICE

AUG 18 2005

## NOTICE OF ALLOWANCE AND FEE(S) DUE

000321

7590

11/05/2004 CM6/JMB

SENNIGER POWERS LEAVITT AND ROEDEL  
ONE METROPOLITAN SQUARE  
16TH FLOOR  
ST LOUIS, MO 63102

UNITED STATES DEPARTMENT OF COMMERCE  
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EXAMINER

NUTTER, NATHAN M

ART UNIT

PAPER NUMBER

1711

DATE MAILED: 11/05/2004

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
✓10/648,458	✓ 08/26/2003	✓Peiguang Zhou	✓KCC 4935.8 (17,051.1)	✓ 5093

✓ TITLE OF INVENTION: LAMINATED STRUCTURES

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO ✓	\$1370	\$300	\$1670	02/07/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. PROSECUTION ON THE MERITS IS CLOSED. THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN THREE MONTHS FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. THIS STATUTORY PERIOD CANNOT BE EXTENDED. SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

## HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

IMPORTANT REMINDER: Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.



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www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/648,458 ✓ 000321	08/26/2003 ✓ 7590	Peiguang Zhou ✓ CMG/JMB	✓ KCC 4935.8 (17,051.1)	✓ 5093
SENNIGER POWERS LEAVITT AND ROEDEL ONE METROPOLITAN SQUARE 16TH FLOOR ST LOUIS, MO 63102			EXAMINER	
			NUTTER, NATHAN M	
			ART UNIT	PAPER NUMBER
			1711	

DATE MAILED: 11/05/2004

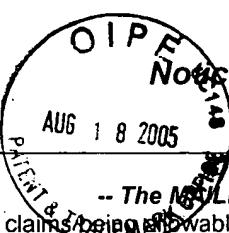
**Determination of Patent Term Adjustment under 35 U.S.C. 154 (b)**  
(application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 0 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 0 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (703) 305-1383. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

	Application No.	Applicant(s)
	10/648,458	ZHOU, PEIGUANG
	Examiner Nathan M. Nutter	Art Unit 1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--  
 All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1.  This communication is responsive to 1 September 2004.
2.  The allowed claim(s) is/are 1-6, 9, 13-29 and 52-75.
3.  The drawings filed on 26 August 2003 are accepted by the Examiner.
4.  Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a)  All
  - b)  Some\*
  - c)  None
 of the:
  1.  Certified copies of the priority documents have been received.
  2.  Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3.  Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.  
**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5.  A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6.  CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
  - (a)  including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
    - 1)  hereto or 2)  to Paper No./Mail Date \_\_\_\_\_.
  - (b)  including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.

Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7.  DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

#### Attachment(s)

1.  Notice of References Cited (PTO-892)
2.  Notice of Draftsperson's Patent Drawing Review (PTO-948)
3.  Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_.
4.  Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5.  Notice of Informal Patent Application (PTO-152)
6.  Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_.
7.  Examiner's Amendment/Comment
8.  Examiner's Statement of Reasons for Allowance
9.  Other \_\_\_\_\_.

## REASONS FOR ALLOWANCE

The following is an examiner's statement of reasons for allowance: No prior art has been found or presented that either teaches or fairly suggests the production of a laminated structure comprising a first substrate, a second substrate, and a pressure sensitive hot melt adhesive bonding the first substrate and the second substrate to one another, wherein the adhesive includes an amorphous poly-alpha-olefin and a crystalline polypropylene having a degree of crystallinity of at least about 40%, said amorphous poly-alpha-olefin comprising a butene-1 terpolymer or copolymer that may be produced with ethylene and propylene comonomers, as recited and claimed. The specific recitations of molecular weights for the components, and the melt index for the blend composition are neither anticipated, nor rendered obvious, by the teachings of the reference to Tsurutani et al, although that reference teaches the use of 1-butene copolymers admixed with polypropylene. Since there are no other outstanding issues with regard to the clarity or enablement of the claims, these claims are deemed to contain allowable subject matter.

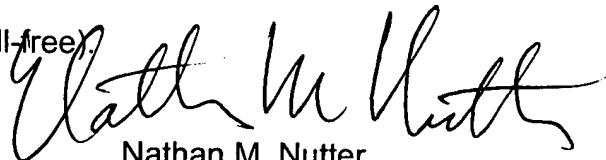
The references to Karandinos et al and Brant, both newly cited of interest, teach the manufacture of polymer blends of polypropylene with an alpha-olefin copolymer, as claimed. While the reference to Karandinos teaches a blend of polypropylene, an amorphous poly alpha olefin is not shown specifically. Note the Summary beginning at column 4. while Brant shows the contemplated poly alpha olefin, the weight average molecular weight disclosed is too low to function in the instant invention. Note the Abstract.

Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nathan M. Nutter whose telephone number is 571-272-1076. The examiner can normally be reached on 9:30 a.m.-6:00 p.m..

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, James J. Seidleck can be reached on 571-272-1078. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

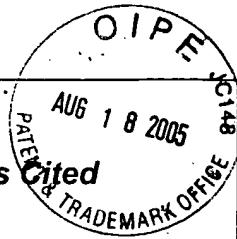
Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Nathan M. Nutter  
Primary Examiner  
Art Unit 1711

nmm

12 October 2004



### Notice of References Cited

Application/Control No. 10/648,458	Applicant(s)/Patent Under Reexamination ZHOU, PEIGUANG	
Examiner Nathan M. Nutter	Art Unit 1711	Page 1 of 1

#### U.S. PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
*	A	US-6,639,020	10-2003	Brant	525/240
*	B	US-6,747,114	06-2004	Karandinos et al.	526/348.2
	C	US-			
	D	US-			
	E	US-			
	F	US-			
	G	US-			
	H	US-			
	I	US-			
	J	US-			
	K	US-			
	L	US-			
	M	US-			

#### FOREIGN PATENT DOCUMENTS

*		Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
	N					
	O					
	P					
	Q					
	R					
	S					
	T					

#### NON-PATENT DOCUMENTS

*		Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)
	U	
	V	
	W	
	X	

\*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(a).)  
Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.



KCC 4935.8  
K-C 17,051.1  
PATENT

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Application of Peiguang Zhou  
Serial No. 10/648,458  
Filed August 26, 2003  
Confirmation No.: 5093  
For: LAMINATED STRUCTURES  
Examiner Nathan M. Nutter

Art Unit: 1711

September 1, 2004

AMENDMENT A AND SUBMISSION AFTER RCE

TO THE ASSISTANT COMMISSIONER FOR PATENTS,  
SIR/MADAM:

In response to the Notice of Allowance dated June 4, 2004, please consider the following amendment and remarks set forth in this Amendment A And Submission After RCE. Allowance of all pending claims is respectfully requested.

**Amendments to the Claims** are reflected in the listing of claims which begins on page 2 of this paper.

**Remarks** begin on page 11 of this paper.

This listing of claims will replace all prior versions, and listings of claims in the application:

IN THE CLAIMS:

1. (Currently Amended) A laminated structure comprising:
  - a first substrate;
  - a second substrate; and
  - a pressure sensitive hot melt adhesive bonding the first substrate and the second substrate to one another, wherein the adhesive includes an amorphous polyalphaolefin and a crystalline polypropylene having a degree of crystallinity of at least about 40%, said the amorphous polyalphaolefin comprising a butene-1 terpolymer with ethylene and propylene and having a number-average molecular weight between about 5,000 and about 30,000 and a weight-average molecular weight between about 20,000 and about 60,000, the crystalline polypropylene having a number-average molecular weight between about 10,000 and about 100,000 and a weight-average molecular weight between about 20,000 and about 300,000, and wherein the adhesive composition has a melt index between about 200 and about 2000 grams per 10 minutes.
2. (Original) The laminated structure of Claim 1, comprising between about 70% and about 90% of the amorphous polyalphaolefin, and between about 10% and about 30% of the crystalline polypropylene.
3. (Original) The laminated structure of Claim 1, comprising between about 73% and about 87% of the amorphous polyalphaolefin, and between about 13% and about 27% of the crystalline polypropylene.

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K-C 17,051.1  
PATENT

4. (Original) The laminated structure of Claim 1, comprising between about 75% and about 85% of the amorphous polyalphaolefin, and between about 15% and about 25% of the crystalline polypropylene.

5. (Original) The laminated structure of Claim 1, wherein the degree of crystallinity of the crystalline polypropylene is at least about 60%.

6. (Original) The laminated structure of Claim 1, wherein the degree of crystallinity of the crystalline polypropylene is at least about 80%.

Claims 7-8 (Canceled).

9. (Original) The laminated structure of Claim 1, wherein the amorphous polyalphaolefin has a weight-average molecular weight between about 25,000 and about 50,000.

Claims 10-12 (Canceled).

13. (Original) The laminated structure of Claim 1, wherein the adhesive composition has a melt index between about 400 and about 1800 grams per 10 minutes.

14. (Original) The laminated structure of Claim 1, wherein the adhesive composition has a melt index between about 500 and about 1500 grams per 10 minutes.

15. (Original) The laminated structure of Claim 1, wherein

the butene-1 terpolymer comprises between about 20% and about 65% by weight butene-1.

16. (Original) The laminated structure of Claim 1, wherein the butene-1 terpolymer comprises between about 30% and about 55% by weight butene-1.

17. (Original) The laminated structure of Claim 1, wherein the crystalline polypropylene comprises at least one of the group consisting of isotactic polypropylene, syndiotactic polypropylene, and combinations thereof.

18. (Original) The laminated structure of Claim 1, wherein the first and second substrates are each part of a single substrate.

19. (Original) The laminated structure of Claim 1, wherein each of the first and second substrates is selected from the group consisting of: nonwoven material, woven material, and film.

20. (Original) The laminated structure of Claim 1, wherein at least one of the first and second substrates comprises at least one of the group consisting of cellulosic material, thermoplastic material, and combinations thereof.

21. (Original) The laminated structure of Claim 1, wherein at least one of the first and second substrates comprises at least one of the group consisting of a necked-bonded laminate, a polypropylene spunbonded layer, and a polyethylene layer in combination with a polypropylene spunbonded layer.

22. (Original) The laminated structure of Claim 1, wherein the first and second substrates each comprise a neck-bonded laminate.

23. (Original) The laminated structure of Claim 1, wherein the first substrate comprises a film and the second substrate comprises a spunbond web.

24. (Original) The laminated structure of Claim 1, wherein the adhesive composition is melt-blown onto at least one of the first and second substrates.

25. (Original) The laminated structure of Claim 1, wherein the adhesive composition is applied to at least one of the first and second substrates in a swirl pattern.

26. (Original) The laminated structure of Claim 1, wherein the adhesive composition is applied to at least one of the first and second substrates in a concentration of between about 1 gram per square meter and about 50 grams per square meter.

27. (Original) The laminated structure of Claim 1, wherein the adhesive composition is applied to at least one of the first and second substrates in a concentration of between about 5 grams per square meter and about 20 grams per square meter.

28. (Original) The laminated structure of Claim 1, wherein the laminated structure has a dynamic shear bond strength greater than a dynamic shear material strength.

29. (Original) The laminated structure of Claim 1, wherein the laminated structure has a static peel bond strength greater than a static peel material strength.

Claims 30-51 (Canceled).

52. (New) A laminated structure comprising:  
a first substrate;  
a second substrate; and  
a pressure sensitive hot melt adhesive bonding the first substrate and the second substrate to one another, wherein the adhesive includes an amorphous polyalphaolefin and a crystalline polypropylene having a degree of crystallinity of at least about 40%, the amorphous polyalphaolefin comprising a butene-1 copolymer and having a number-average molecular weight between about 5,000 and about 30,000 and a weight-average molecular weight between about 20,000 and about 60,000, the crystalline polypropylene having a number-average molecular weight between about 10,000 and about 100,000 and a weight-average molecular weight between about 20,000 and about 300,000, and wherein the adhesive composition has a melt index between about 200 and about 2000 grams per 10 minutes.

53. (New) The laminated structure of Claim 52, comprising between about 70% and about 90% of the amorphous polyalphaolefin, and between about 10% and about 30% of the crystalline polypropylene.

54. (New) The laminated structure of Claim 52, comprising between about 73% and about 87% of the amorphous polyalphaolefin,

KCC 4935.8  
K-C 17,051.1  
PATENT

and between about 13% and about 27% of the crystalline polypropylene.

55. (New) The laminated structure of Claim 52, comprising between about 75% and about 85% of the amorphous polyalphaolefin, and between about 15% and about 25% of the crystalline polypropylene.

56. (New) The laminated structure of Claim 52, wherein the degree of crystallinity of the crystalline polypropylene is at least about 60%.

57. (New) The laminated structure of Claim 52, wherein the degree of crystallinity of the crystalline polypropylene is at least about 80%.

58. (New) The laminated structure of Claim 52, wherein the amorphous polyalphaolefin has a weight-average molecular weight between about 25,000 and about 50,000.

59. (New) The laminated structure of Claim 52, wherein the adhesive composition has a melt index between about 400 and about 1800 grams per 10 minutes.

60. (New) The laminated structure of Claim 52, wherein the adhesive composition has a melt index between about 500 and about 1500 grams per 10 minutes.

61. (New) The laminated structure of Claim 52, wherein the butene-1 copolymer comprises between about 25% and about 65% by

weight butene-1, and a balance of a comonomer selected from the group consisting of ethylene, propylene, and combinations thereof.

62. (New) The laminated structure of Claim 52, wherein the butene-1 copolymer comprises between about 30% and about 55% by weight butene-1, and a balance of a comonomer selected from the group consisting of ethylene, propylene, and combinations thereof.

63. (New) The laminated structure of Claim 52, wherein the crystalline polypropylene comprises at least one of the group consisting of isotactic polypropylene, syndiotactic polypropylene, and combinations thereof.

64. (New) The laminated structure of Claim 52, wherein the first and second substrates are each part of a single substrate.

65. (New) The laminated structure of Claim 52, wherein each of the first and second substrates is selected from the group consisting of: nonwoven material, woven material, and film.

66. (New) The laminated structure of Claim 52, wherein at least one of the first and second substrates comprises at least one of the group consisting of cellulosic material, thermoplastic material, and combinations thereof.

67. (New) The laminated structure of Claim 52, wherein at least one of the first and second substrates comprises at least one of the group consisting of a necked-bonded laminate, a

polypropylene spunbonded layer, and a polyethylene layer in combination with a polypropylene spunbonded layer.

68. (New) The laminated structure of Claim 52, wherein the first and second substrates each comprise a neck-bonded laminate.

69. (New) The laminated structure of Claim 52, wherein the first substrate comprises a film and the second substrate comprises a spunbond web.

70. (New) The laminated structure of Claim 52, wherein the adhesive composition is melt-blown onto at least one of the first and second substrates.

71. (New) The laminated structure of Claim 52, wherein the adhesive composition is applied to at least one of the first and second substrates in a swirl pattern.

72. (New) The laminated structure of Claim 52, wherein the adhesive composition is applied to at least one of the first and second substrates in a concentration of between about 1 gram per square meter and about 50 grams per square meter.

73. (New) The laminated structure of Claim 52, wherein the adhesive composition is applied to at least one of the first and second substrates in a concentration of between about 5 grams per square meter and about 20 grams per square meter.

74. (New) The laminated structure of Claim 52, wherein the laminated structure has a dynamic shear bond strength greater

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than a dynamic shear material strength.

75. (New) The laminated structure of Claim 52, wherein the laminated structure has a static peel bond strength greater than a static peel material strength.

REMARKS

After entry of this Amendment A And Submission After RCE, claims 1-6, 9, 13-29, 52-75 will be pending. Claim 1 has been amended to require the amorphous polyalphaolefin to have a number-average molecular weight between about 5,000 and about 30,000 and a weight-average molecular weight between about 20,000 and about 60,000; the crystalline polypropylene to have a number-average molecular weight between about 10,000 and about 100,000 and a weight-average molecular weight between about 20,000 and about 300,000; and the adhesive composition to have a melt index between about 200 and about 2000 grams per 10 minutes. Support for the amendments to claim 1 can be found in original dependent claims 7, 8, 11, and 12 and further, throughout the instant specification.<sup>1</sup>

Additionally, claims 52-75 have been added and are directed to a laminated structure comprising a first substrate; a second substrate; and a pressure sensitive hot melt adhesive bonding the first substrate and the second substrate to one another. The adhesive includes an amorphous polyalphaolefin and a crystalline polypropylene having a degree of crystallinity of at least about 40%. The amorphous polyalphaolefin comprising a **butene-1 copolymer** and having a number-average molecular weight between about 5,000 and about 30,000 and a weight-average molecular weight between about 20,000 and about 60,000; the crystalline polypropylene having a number-average molecular weight between about 10,000 and about 100,000 and a weight-average molecular weight between about 20,000 and about 300,000; and wherein the

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<sup>1</sup>See, e.g., Instant specification on pages 12-13, paragraphs 0038-0040 and page 15, paragraph 0047.

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adhesive composition has a melt index between about 200 and about 2000 grams per 10 minutes. Support for these new claims can be found throughout the instant specification.<sup>2</sup> Applicant respectfully requests reconsideration and allowance of all pending claims.

Applicant also notes that in the prosecution of the parent application of this case, U.S. Application Serial No. 09/945,240 filed on August 31, 2001, now U.S. Patent No. 6,657,009, applicant stated, without any deceptive intent, in Amendment A filed on July 1, 2003, the following concerning U.S. Patent No. 5,472,792 (Tsurutani et al.):

Significantly, Tsurutani et al. fail to disclose the use of any butene-1 terpolymers as required by claim 1.

At most, the laminated films may comprise a butene-1 copolymer. As such, because Tsurutani et al. fail to disclose each and every element of claim 1, claim 1 is not anticipated by this reference and is patentable.

Applicant has now realized that this reference does disclose the use of butene-1 terpolymers at, for example, column 3, lines 50-56. Applicant brings this to the attention of the Office to correct the previously erroneous statement. Applicant will be filing a reissue application in the parent case to correct this misstatement.

The Commissioner is hereby authorized to charge any fee

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<sup>2</sup>See, e.g., Instant specification on pages 12-13, paragraphs 0038-0040 and page 15, paragraph 0047.

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deficiency in connection with this Amendment A to Deposit Account  
Number 19-1345 in the name of Senniger, Powers, Leavitt & Roedel.

Respectfully Submitted,



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